

THE  
AMERICAN  
MEDICAL INTELLIGENCER.  
*New Series.*

Vol. I.

November, 1841.

No. 5.

ART. I.—ON OPHTHALMIA.

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*Dr. Dunglison,*

Dear Sir,—Than ophthalmia, as generally observed, few diseases are more common, or, at times, prove more harassing and vexatious, as well to the patient as the physician.

From the speedy and complete success attending the very simple mode of treatment adopted in two cases, lately presented to my notice, I am induced to send you a report of them, in the belief that this mode of applying many remedies will prove more serviceable in many cases of ophthalmia than that generally adopted. Whether correct or not, I feel disposed to attribute the success of this plan of treatment, almost entirely, to the absolute rest imposed upon the eyes, preventing any motion of the lids, and allowing nature full opportunity to exert her well known and powerful curative influence over disease.

Last winter, a man employed in the gas works of this city received an injury on the side of the face, which resulted in a very severe inflammation of the right eye, extending over the conjunctiva of the ball and lids. Supposing it would prove but temporary, he confined himself to bathing the eye frequently with cold water; so painful, however, did it become by the end of the second day, that he requested me to order something for it, stating at the same time his inability to absent himself from work.

I ordered a dose of salts, and directed him to prepare an infusion of the pith of sassafras, when cold, to be mixed with an equal quantity of rose water, and to be used as follows:

Envelope in linen a piece of stale bread, crust removed, of the size of the palm of the hand, saturate this with the above, apply it over the eye, and keep it on moderately tight with a bandage or handkerchief, which was on no account to be removed before seeing me again. The compress to be kept moist by pouring occasionally upon it from above a few table spoonfuls of the liquid.

The next evening he reported that the eye had been very comfortable, pain much diminished, the bandage had not been removed, and he had been at work all day.

Upon examining the eye, I found the inflammation materially lessened, and directed a continuance of the same local treatment.

In two days from this time the eye was perfectly well.

*Case Second.* A black man, labouring under a severe attack of ophthalmia in both eyes, had been taking various medicines, and applying different washes for about a week without benefit.

The inflammation had been gradually increasing, attended with considerable pain and discharge, and when I saw him, the conjunctiva of both eyes was in a high state of inflammation.

This case occurring shortly after the above, I determined upon trying the same means, substituting for the infusion of sassafras and rose water, a weak solution of the acetate of zinc in rose water, directing him to keep perfectly quiet, and to apply the compress as above directed.

Considering it unnecessary to detail the daily progress, it is sufficient to state, that in the space of one week a perfect cure was effected.

While upon this subject, I will further trespass upon your time by giving the result of a plan of treatment in an exceedingly violent case of ophthalmia for which all the usual remedies had been ineffectually tried.

At the time I tried the plan about to be mentioned, I was not aware of its ever having been recommended: I have lately, however, seen it spoken of in terms of commendation by M. Velpeau, of Paris.

In the year 1824, I attended a healthy negress, aged about eighteen years, for an inflammation of both eyes, which continued to increase in severity, notwithstanding the most active treatment, consisting of frequent and copious general and local bleeding, emetics, nauseants, purgatives, a variety of local applications, confinement to a dark room, and the most rigid diet.

Finding the ordinary treatment of no avail, and feeling uneasy as to the result, I decided upon applying a blister over both eyes, with a soft compress of old linen over them, and retained by a bandage.

At the expiration of eight hours, I removed the blisters, which had drawn very well, and discharged copiously, but not being able to procure a sight of the eyes, I directed a tepid bread and milk poultice to be applied, and renewed every four hours. The pain had become much less, and at the expiration of two days, when enabled to examine the eyes, I was much gratified to find the inflammation considerably reduced, and by continuing the poultice a few days longer, and then substituting the mildest washes, a perfect cure was accomplished in about ten days.

It may not be amiss to state, that, notwithstanding the apparent severity of the remedy, my patient did not complain of its causing any pain, but, on the contrary, that caused by the disease, which had previously been very great, was soon sensibly diminished by the action of the blisters, and was no longer the subject of complaint.

In reference to the proper period for applying blisters over the eyes, in violent and obstinate cases of ophthalmia, it appears to me, that, after a very decided impression has been made upon the general system, by the usual depletory remedies, and not till then, they may be applied with the most decided advantage.

As regards the *modus operandi* of blisters in these cases, it is unnecessary to dwell upon it, great discrepancy of opinion existing upon that point; I am, however, disposed to believe, that to the simultaneous discharge and excitant effect produced by them, we may reasonably attribute the positive curative effects displayed in this case.

With respect, I remain

Yours sincerely,

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## ART. II.—ON SOME DISEASES IN WHICH ALBUMINOUS URINE OCCURS.

By THOMAS WILLIAMSON, M. D.<sup>1</sup>

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Since the promulgation of the views entertained by Dr. Bright and others, in reference to the urine containing albumen in certain diseased conditions of the kidney, members of the profession in general have willingly given their assent to this doctrine. But whilst, on the one hand, it cannot be denied that Dr. Bright, by his researches, threw light upon much that was formerly obscure, on the other, it may fairly be questioned whether the medical profession are not disposed to attach too much importance to the simple appearance of an adventitious principle in the renal secretion, as pathognomonic of structural change in the kidney. It is my object, then, in the present communication, to inquire whether there are diseases, apart from change in the renal structure, in connection with which albumen is contained in the urine, and by this means attempt to show that this phenomenon is not of such rare occurrence as is perhaps generally believed.

Although Dr. Bright, doubtless, is entitled to the merit of being the first to proclaim to the medical world, the fact of renal disease, coexisting with an altered constitution of the urine and dropsy, as mere symptoms of the primary renal change of structure, yet the existence of albumen in the urine of certain patients labouring under dropsy was made known in the year 1764, by Cotunnus, who, adverting to this phenomenon, as occurring in a young man affected with anasarca, to whom he gave cream of tartar, and increased by this means the flow of urine, says, "*nam daubus libris ejus urinæ ad ignem admotis cum pene dimidium evaporasset, reliquum facessit albam in massam, jam coacto ovi albumine persimilem.*"<sup>2</sup> Again, in the year 1770, we find Dr. Fordyce stating, that, "if the kidneys are relaxed or stimulated, chyle, serum, coagulable lymph, and even the red part of the blood may be thrown out."<sup>3</sup> Dr. Darwin, in 1794, states, "there is a third species of diabetes, in which the urine is mucilaginous, and appears ropy when pouring it from one vessel into another, and will sometimes coagulate over the fire."<sup>4</sup> In 1798, Rollo thus writes, "nitrous acid added to healthy urine produces slight effervescence, and gives it more or less of a reddish colour, but produces no precipitation. In some diseases, however, particularly general dropsy, or anasarca, this reagent, when dropped into the urine, produces a milkiness, and in some instances, a coagulation similar to what would take place if added to the serum of the blood;" and again, "in morbid states of the urine, the coagulable part of the serum is detected both by the nitrous acid and even by heat."<sup>5</sup> In 1811, Blackall,<sup>6</sup> Cruickshanks,<sup>7</sup> and Nysten detected the same phenomenon. The latter says that he examined the urine of a young man labouring under acute peritonitis, under which he died; and among the other substances discovered, he states that it contained "a large amount of albuminous matter, which the urine does not contain in a state of health." Talking of the urine belonging to dropsical patients, he states that he procured some from a young man, eighteen years of age, who had been affected with ascites for several months, to all

<sup>1</sup> Edinburgh Med. and Surg. Journal, Oct. 1, 1841, p. 364.<sup>2</sup> Cotunnus de Ischiade Nervosa Neapoli, 1764, republished in Thesaur. Sandifort, page 417.<sup>3</sup> Fordyce's Elements of Practice of Physic, 1770, p. 18.<sup>4</sup> Darwin's Zoonomia, 1794, vol. i. p. 316.<sup>5</sup> Rollo on Diabetes, 1798, pp. 443-446.<sup>6</sup> Blackall on Dropsies, 1811.<sup>7</sup> Ibidem, (see Appendix.)



appearance idiopathic; and among the other substances detected by chemical analysis, he adds, "as regards the great quantity of albumen found in this urine, it will be necessary to analyse, and support them by the examination of dead bodies, in order to determine if the dropsy had any share in its development, or if it was dependent upon a particular state of the urinary organs." He also, alluding to peritonitic urine, says, that "it contained much albumen, which leads to the supposition that the urine becomes albuminous in peritonitis."<sup>1</sup> In 1812, Dr. Wells<sup>2</sup> likewise directed attention to the appearance of albumen in the urinary secretion.

Previous to bringing forward cases for the purpose of proving the frequent existence of albumen in the renal secretion, altogether independent of any change of structure occurring in the kidney, it may, perhaps, be well, shortly to advert to the opinions expressed by various authors of eminence as to the extreme rarity of its occurrence. Dr. Osborne states in connection with this subject, "in no instance have I met with coagulable urine without diseased kidneys, or healthy kidneys with coagulable urine." Dr. Christison states, that, although coagulable urine may be found without kidney disease, it is, nevertheless, "very rare." M. Rayer is said to have examined the urine of 400 patients taken indiscriminately, the result of which was, that only three presented albuminous urine without granular kidney. M. Solon examined the urine of 500 or 600 persons either in health or full convalescence, and found only one with albuminous urine. And lastly, Professor Forget, on two different occasions, examined the urine of between forty and fifty patients in his hospital, and "found albuminous urine only in those affected with dropsy, and in whom, when they did not recover, the inspection proved the existence of diseased kidneys."<sup>3</sup>

On the other hand, among those who strongly contend for the frequent appearance of albuminous urine without kidney disease, we may mention the name of Dr. Darwall, who illustrates his position by several cases, one or two of which we now call attention to. Talking of effusions which frequently attend diseased states of the heart, he observes:

CASE I.—In a patient who died in the Birmingham Hospital, during the present year, at a very early stage of the effusion, two months before his death, the urine was barely rendered turbid, but the evening he died it was nearly rendered solid by boiling. On dissection, the heart was found enormously enlarged, and the aorta very much diseased, the kidneys were perfectly sound."

CASE II.—Another case "occurred in a lady who had been suffering from pulmonary symptoms, and symptoms of disease of the heart for nine months. When we first saw her, at this time, the urine coagulated strongly, and continued to do so till the period of her death, three months afterwards; yet, while the left lung, the pleura, and the heart, exhibited serious disease of long standing, and while the liver was also diseased, though in a slighter degree, there was no appreciable change whatever in the substance of the kidneys."<sup>4</sup>

The three following are cases of pneumonia, and occurred in our own experience.

CASE III.—John Guy, aged 25, a stout, sober, and healthy young man, by occupation a seaman, after having been exposed to cold, was seized with rigors, which were shortly afterwards followed with dyspnoea, cough, and copious rusty-coloured expectoration; crepitating rale heard all over the right side; passed about a pint of urine in the twenty-four hours, of a dark straw colour, specific gravity 1012. In this case, nitric acid gave an albu-

<sup>1</sup> Nysten, *Recherches de Physiologie*, 1811, p. 255, 260, and 262.

<sup>2</sup> *Transact. of a Society for the Improvement of Med. and Chir. Knowledge*, vol. iii. p. 167. London, 1812.

<sup>3</sup> See Christison on the "Granular Kidney," page 39.

<sup>4</sup> *Cyclopædia of Practical Medicine*, vol. i. Article "Dropsy," p. 637 and 640.

minous precipitate to the extent of nearly one half of the volume of fluid employed, which precipitate withstood the action of heat. This occurred at an early period of reaction. The young man subsequently recovered.

CASE IV.—Alexander Ballingar, an old soldier, aged 68, stated that he enjoyed during his life the best of health, with the exception of a severe inflammation of the chest, which was brought on by lying three days and nights on the field of Waterloo, after having been wounded in that engagement. He had been ten days ill with dyspnoea, cough, and coloured expectoration before seen by me, at which time all these symptoms continued. In addition, the right side of chest upon percussion gave a sound as dull as that emitted by marble; percussion on left side tolerably natural; bronchial respiration and bronchophony were heard distinctly all over the right side, while mucous râles, with puerile respiration, were present in the left side of chest; passed about a pint of urine in the twenty-four hours, of the colour of small beer, specific gravity 1022, which yielded no precipitate by heat alone. After the addition, however, of a little nitric acid, a copious albuminous precipitate was the result, which effectually withstood the reapplication of heat, showing that the urine had been previously alkaline. This man died.

Upon dissection, the whole of the right lung was found to be in the state of gray hepatisation, with extensive old cellular adhesions between the *pleura costalis* and *pulmonalis* of both sides; the left lung was in a state of active congestion. The kidneys and other organs were perfectly healthy. This man, it should have been stated, was a drunkard.

CASE V.—John Gray, aged 45, by profession formerly a soldier, had fought at Waterloo, and died the same day as the preceding case, labouring under all the symptoms of pleuropneumonia. Upon dissection, recent bands of lymph were found passing between the *pleura costalis* and *pulmonalis* of the right side, with some serous effusion into the corresponding pleural sac. Right lung in a state of red hepatisation, with small portions here and there having passed on to the gray, slight effusion into the pericardial cavity, with soft lymph between its serous coats. Kidneys perfectly healthy to all appearance, though rather pale in colour; both structures, however, quite distinct. Passed before death about eighteen ounces of pale coloured urine daily. Specific gravity 1012; heat and nitric acid gave an abundant precipitate of albumen.

Most of the following cases came under my own direct observation.

CASE VI.—Mrs. Ross, aged 63, of sober and temperate habits, before death had for some years been affected with all the symptoms of scirrhus of the pyloric extremity of the stomach, such as, almost constant pain, anorexia, and frequent vomiting of a dark coloured fluid, somewhat similar to coffee grounds. Upon dissection, the pyloric extremity of the stomach was thickened and hardened, which arose from its cellular tissue having become hypertrophied. Kidneys perfectly healthy, as were all the other abdominal organs. The lungs were loaded with frothy mucus. Left ventricle of heart in a state of hypertrophy without dilatation; its other cavities were perfectly healthy and natural; the two serous surfaces of the pericardium were universally adherent, by means of old cellular bands. During life there was nothing remarkable in respect of the renal secretion, as regarded quantity. Then, it was not examined. After death, however, the quantity of urine obtained from the bladder, though too limited to enable us to ascertain its specific gravity, nevertheless, by the agency both of heat and nitric acid, afforded an albuminous precipitate almost equal in volume to the quantity of fluid employed.<sup>1</sup>

<sup>1</sup> In many of the succeeding cases, it will be observed, that the urine was submitted to chemical examination after the death of the patients. Now, though I am aware that on this account objections may be urged against the validity of such cases, on the ground of the serum of the blood exuding through the tissues of the bladder after death,

**CASE VII.**—Mrs. W. for three years before her death had laboured under symptoms of diseased stomach. Upon dissection, the pyloric extremity of the stomach was found in a well-marked state of what is usually denominated scirrhus of the stomach. All the other abdominal organs were healthy. Unfortunately, however, the kidneys were not minutely examined, so that we are unable to bring forward any positive evidence as to their natural or healthy state. We have, however, thought this case worth inserting along with the preceding one of scirrhus of the stomach, more especially as the urine which was obtained from the bladder was highly albuminous.

**CASE VIII.**—J. A., 73 years of age, had been the subject of retention of urine for the last ten or twelve days of his life, seemingly dependent upon a paralysed state of the bladder. The urine was secreted in considerable abundance, and was of a dark greenish colour; specific gravity 1022. This urine contained a large quantity of albumen. Upon dissection the left kidney was very small and atrophied, containing a considerable sized calculus within its pelvis. The parenchymatous tissue of this kidney was almost entirely converted into serous cysts. A smaller calculus, of a peculiar flat button shape, was contained in one of those cysts at the upper part of this kidney. The right kidney was in a state of hypertrophy, but otherwise healthy. The urinary bladder was large, and immensely hypertrophied in all its coats; its inner or mucous coat was rough and granular, several small calculi were found in the urethral portion of the prostate gland, which gland itself was much increased in size.

Some writers upon the granular kidney, in establishing the existence of albumen in the renal secretion, as one of the pathognomic symptoms most to be relied on for pointing out the disease, deny, that, whilst the renal tissue remains unaltered, any organic lesion of the liver is capable of producing the phenomenon in question. It will be seen, by referring to a few cases which follow, that albumen was detected in the urine of individuals, in whom the tissue of the liver was, upon dissection, found to deviate from its normal condition, and to have assumed that peculiar appearance known by the term cirrhosis. Little value may, perhaps, however, be attached to such cases, seeing that it has been doubted by able authority whether this seeming change of structure be really an accidental deposit. I have, notwithstanding, thought them worth recording.

**CASE IX.**—A Prussian sailor fell by accident into the hold of his vessel. Immediately afterwards he was brought to the Casualty Hospital (Leith), when it was found that he had sustained a severe fracture of the cranium. He died in a few hours after admission, with symptoms of compression of the brain. Upon dissection, a large coagulum was found between the inner table of the skull and *dura mater*. The corresponding or left cerebral hemisphere was much compressed, and partially lacerated. The liver was large, and contained many large patches affected with cirrhosis. The spleen was soft, and the kidneys perfectly healthy. The urine was pale and colourless; specific gravity, 1016. When exposed to heat or nitric acid an abundant precipitate of albumen was the result. This man was uncommonly powerful, 30 years of age, and in the full enjoyment of health both previous to and at the time of the accident.

**CASE X.**—J. Robertson, aged 30 years, a stout muscular porter, of intemperate habits, was seized with all the ordinary symptoms of *delirium tremens*, from which he died.

Upon dissection, the traces of general cerebral congestion were apparent, without, however, any of the prominent effects of inflammatory action. Considerable serous effusion was found between the arachnoid membrane and *pia mater*, as also at the base of the cranium. The two serous surfaces of

and consequently mingling with the urine therein contained, nevertheless, as from experiment I know this to be by no means a phenomenon of universal occurrence, I think it but right to record these cases in conjunction with others.



the pericardium were universally adherent, by old cellular tissue. The left ventricle of heart was hypertrophied, without much dilatation. A ring of osseous deposit was found surrounding the mitral valve.

The liver was about its natural size, but much affected with cirrhosis. The kidneys were perfectly healthy. The urine was of a dark straw-colour; specific gravity, 1018. Heat and nitric acid gave an albuminous precipitate, equal in volume to perhaps a fourth of the fluid employed.

Dr. Blackall gives an instance of albuminous urine co-existing with diseased liver, which we shall here abridge.

CASE XI.—A. B. aged 45, sallow and bloated skin; pulse 100, hard; dyspnœa; loss of voice, and stricture about the hypochondria; abdomen swelled; frequent dark bilious discharges; œdema of legs; urine of the appearance and colour of rennet whey, copious at night, precipitating at 160; convulsions shortly came on, with fixed but not dilated pupils. Blood drawn was watery, and much cupped. Not more than two hours before her death, the pulse remained still quick and hard.

*Dissection.*—Lung every where free from adhesion; about four ounces of bloody serum on each side of the chest; a small quantity of pale fluid in the pericardium; very little water in the abdomen. The liver hard, with a thick curled edge, its membrane being rather white, and greatly thickened, and its surface irregular with tubercles. A considerable portion of its substance was divided into hard brown tubercular masses; the other viscera of the abdomen sound. "I speak," says he, "particularly of the kidneys." It is clearly evident from this language, that his attention was in an especial manner directed to the kidneys, so that it is scarcely possible to conceive that, had their tissue been materially affected, the change would have eluded his observation.

CASE XII.—James Lamb, aged 48, by occupation a carpenter, was squeezed between two logs of wood in a ship-building yard, and immediately brought to the Leigh Dispensary, where he soon afterwards died. Upon dissection, the four superior ribs of both sides were found fractured. The right lobe of the liver was lacerated and torn. Its substance presented the appearance usually known under the name of cirrhosis. The kidneys were quite healthy. The bladder contained so little urine as to prevent our ascertaining its proper specific gravity; but which, nevertheless, yielded a copious precipitate both by heat and nitric acid. This man had enjoyed good health previously.

CASE XIII.—V. Ward, aged 41, died labouring under the symptoms of *phthisis* and *diabetes insipidus*. Upon dissection, the lungs were found tuberculous. The liver had seemingly undergone fatty degeneration. The kidneys, and other organs, were healthy. The urine was of a pale colour; its specific gravity, however, was not ascertained; heat and nitric acid both yielded a copious albuminous precipitate.

CASE XIV.—W. Saunders, aged 60, died of chronic ulceration of the epiglottis and larynx. Upon dissection, the liver was found partially affected with cirrhosis. The kidneys, as well as other organs, were, to all appearance, healthy. The bladder contained a small quantity of urine, which did not admit of its specific gravity being taken, but which yielded a copious precipitate by heat, which was not redissolved by the addition of acid.

The following are cases of various descriptions.

CASE XV.—William Hollingworth, aged 45, of very temperate habits, had long laboured under symptoms of diseased heart and blood-vessels, from which he at length sunk. Upon dissection, the left ventricle of the heart was greatly dilated, with proportional hypertrophy. The right auricle was greatly dilated, without hypertrophy. The inner membrane of the ascending aorta was covered with osseous laminæ.

The urine was of a dark straw colour; specific gravity, 1022; heat and nitric acid both yielded an albuminous precipitate.

**CASE XVI.**—James Stirling, aged 23, a young man previously in the enjoyment of good health, was seized suddenly at Hull with indisposition, for which blood was taken from the arm. On his return home he was labouring under severe inflammation of the vein which had been opened. Latterly, symptoms of purulent effusion within the pleural cavity took place, under which he sank.

Upon dissection, the veins of the arm were found filled with purulent matter. Several pints of the same fluid were contained in the right pleural cavity. The kidneys and other viscera were healthy. About a pint of urine was passed in the twenty-four hours, of a straw colour; specific gravity, 1012; heat and nitric acid in this instance formed almost a solid coagulum.

**CASE XVII.**—Jane Patterson, aged 3½ years, had been affected with well-marked pertussis for about two months. By imprudent exposure to cold, an attack of *cynanche trachealis* supervened, and terminated fatally.

Upon dissection, the lungs were found to be the seat of interlobular emphysema. The larynx was highly vascular throughout, having its mucous surface covered here and there with soft lymph. Heart, liver, kidneys, and other organs were perfectly healthy in this case. The urine was pale and colourless; its specific gravity was not ascertained; heat and nitric acid, however, gave a large precipitate of albumen.

**CASE XVIII.**—J. M., aged 5 years, had a mild attack of scarlatina, from which he was convalescing favourably. About three weeks after the appearance of the eruption, his parents observed him slightly swelled in the lower extremities. At this period he was suddenly seized with dyspnoea, and severe lumbar pain, stretching itself down the thighs; the breathing was hurried and laborious, with loud mucous rattle over the whole chest; the urinary secretion was almost suppressed, and the small quantity passed was of a high colour, and deposited an abundant precipitate of a brick colour; pulse 170, strong and full. He was immediately bled, and leeches were applied to the loins. The urine was examined, and its specific gravity found to be 1015, at the same time that it contained an abundant proportion of albumen.

Upon dissection, both lungs were found in a state of active congestion; all the other viscera were healthy, with the exception of the kidneys, which were congested.<sup>1</sup>

As our limits will not permit a full detail of each individual case in which albuminous urine was detected, we must close this part of our subject by little more than a simple mention of those cases of disease in which this phenomenon was found.

1st. It was observed in the case of a young girl affected with pertussis. This girl is now in the enjoyment of excellent health.

2dly. It was observed in a case of *diabetes insipidus*, since dead, without a *post mortem* examination being obtained.

3dly. It was observed in a case of icterus, occurring in a previous healthy man, whose urine was of the low specific gravity of 1008. This man is since quite well.

4thly. It was observed in a case of chronic bronchitis, with diseased heart, where there was no reason to apprehend kidney disease.

5thly. It was observed in the case of a man for many years affected with syphilis, having lost his nose and soft palate by ulceration. This man had taken large quantities of mercury.

6thly. It was observed in a man labouring under severe gastric fever, owing to over-indulgence in eating and drinking.

<sup>1</sup> The appearance which the kidneys presented in this case was simply, as might have been *a priori* expected from the symptoms, that of active congestion, without the slightest vestige of any of the prominent appearances which, according to Dr. Bright, characterise the first stage of the affection described by him.



7thly. It was observed in a young girl affected with severe rheumatic fever; and

8thly. It was observed in a case of modified variola, occurring in a girl four years of age, and the period when it was noticed was during the second day of the eruption.

We thus see that the simple appearance of albumen in the urine is not confined to those cases in which the structure of the kidneys has undergone an evident change; but that the same phenomenon is often visible in cases where the most careful examination fails to detect a deviation from the appearance which these organs ought to present in perfect health.

In attempting to account for the renal secretion sometimes containing albumen apart from kidney disease, we shall take advantage, in our subsequent remarks, of some of the cases which we have previously detailed, in order to illustrate our explanations; for instance,

CASE XVIII. presents us with an example of scarlatina, in which the presence of albuminous urine was discovered. In that peculiar form of anasarca which follows the scarlatinous eruption, more especially after imprudent and too early exposure to cold, it has been found that the urine possesses characters strikingly analogous to those of the granular kidney, in so far as one of the pathognomonic symptoms of the latter disease is concerned, viz. coagulability by the application of heat, or upon the addition of nitric acid. This well known phenomenon has often been alluded to, and brought forward by those who are disinclined to attach that degree of importance to the simple state of coagulability which the urine may possess as characteristic of renal lesion, and which the partisans of Dr. Bright's doctrine value so highly. But, however little this example may be regarded as affecting the views of Dr. Bright and his followers, it cannot be denied that the almost constant and general appearance of albumen in the urinary secretion of scarlatinous dropsy, goes not a little to stagger the faith of those, who would believe in its existence only in connection with organic lesion of the kidney; for, in order to reconcile this seeming incongruity, they have recourse to the expedient of almost identifying the two diseases. Harmony is thus established by their referring the scarlatinous and renal dropsy to one and the same cause, and the example of those opposed to this theory thus seemingly overturned; because brought forward for the purpose of showing that there were other diseases besides that of the granular kidney, in which not only did dropsy follow as a secondary or symptomatic affection, but that the urine might also be found to contain a large quantity of albumen, altogether independent of, and unconnected with renal lesion.

The attention of the medical profession was, we believe, first directed by Mr. Hamilton to the fact, that in the scarlatinous dropsy, subsequent to the eruption, the kidneys, when cut into, present pretty much the same appearance as they do in the genuine form of Bright's disease in the first stage.

When we reflect upon the various forms which disease may assume; or when we compare the relative appearance presented by active and passive congestion, where none of the other more characteristic products of the former are present in addition to redness, we may well pause before we give absolute credence to such a sweeping proposition, as would declare that the kidneys, (admitting that they may externally present somewhat the same appearance in the two affections now under consideration,) are nevertheless perfectly identical in point of lesion. If such were the case, how comes it to pass that the mortality in the one disease so far exceeds that observed in the other? Ought not this very fact of itself to lead us to the suspicion that, in that peculiar form of disease of the kidney which Dr. Bright has described, and with which his name is associated, there is a lesion of the organ widely differing from that which exists in the kidney after scarlatina? The vascular tissue which enters into the composition of this organ is liable to various gradations of tint, depending proportionally upon the quantity of blood which it may happen to contain at the time of examination. In most

acute febrile or exanthematous affections, therefore, in which the natural and healthy function of the kidneys is either suspended or interfered with, it surely is not irrational to suppose, that active or passive congestion may, to a certain extent, be present in the renal substance; which peculiar condition of the vascular tissue we apprehend to be the real cause of the apparent similarity which exists between the real granular kidney and the same organ after scarlatina. The adherents of the doctrine which contends for the similarity of structural lesion, which the kidney is the seat of in the two diseases, for the purpose of throwing aside the simple state of passive congestion, and discarding this condition of the kidney as explanatory of the appearances which they assume it to present, may, with seeming plausibility in substantiation of their own proposition, bring forward cases of dropsy after scarlatina, in which the kidney presented unequivocal and irrefragable evidence of having undergone that pathological change described by Dr. Bright and other authors. All this, we most willingly admit, may take place; but, on the other hand, we are disposed to regard these isolated cases as exceptions to a general rule, and as simple examples of the coincidence of scarlatina, and it may be subsequent dropsy, in a system where the kidneys were previously the seat of organic disease. More matter might easily be brought forward, even from Mr. Hamilton's paper, for the purpose of showing that an essential difference exists between renal and scarlatinous dropsy; but this our present limited space will not permit.

We have alluded to congestion of the kidney, as likely to lead to the confounding of appearances presented by that organ in the granular kidney and scarlatinous dropsy; but we come now to consider hypothetically, as to the likelihood which exists of congestion also exciting an albuminous state of the urine. Although the general question has not yet been decided as to whether dropsy is to be ascribed to diminished absorption, or undue exhalation, it is, nevertheless, generally admitted in some cases to depend upon a want of balance between these two functions. Dr. Marcet gives a particular account of the chemical nature of the dropsical effusions found in various diseases, and in different cavities of the body, as in hydrocephalus, ascites, hydrothorax, &c., from which it would appear that the prevailing animal substance is albumen. As plethora has been shown by Magendie to be unfavourable to absorption, may we not justly consider this state of the system as one of the predisposing causes of dropsy? Now, if the due equilibrium which ought to subsist between absorption and exhalation be thus interfered with by means of plethora, we may easily perceive how an organ, or structure within any of the cavities of the human body, becoming the seat either of active or passive congestion, should stand as cause to the effect of serous effusion, which subsequently succeeds in the cavity in which they may happen to be contained. If such is the case with regard to the pleural or abdominal cavities, by extending the operation of the same law to the kidney, we may perhaps explain the existence of albumen in the urinal secretion.

The pelvis of the kidney may justly be regarded in the light of a membranous cavity, so that any circumstance tending to excite fulness or plethora of its vessels, will have the direct effect of disturbing the balance between the functions of exhalation and absorption, the exhalation being increased, whilst *pari passu*, the absorption is diminished, may therefore satisfactorily enough account for a more than usual quantity of serum mingling with the proper renal secretion, and consequently giving rise to the existence of albumen. Such, we apprehend, takes place in those cases of diseased heart, more especially where hypertrophy of the left ventricle exists; in which albuminous urine is not unfrequently found, as in cases tenth and fifteenth; for it must be obvious to every one, that in such cases, the kidneys, as well as the other viscera below the diaphragm, are liable to become the seats of congestion, either owing to increased arterial action, or the imposition of some barrier to the free return of the blood by means of the veins.

Were we to enter into the field of speculative inquiry, as to other probable causes of albuminous urine, we might readily mention a few.

We have said that it may be caused by a species of dropsy of the pelvis of the kidney itself, owing to plethora disturbing the proper balance between the function of exhalation and that of absorption; the blood at the time being in a state of perfect health. But may we not refer this phenomenon to an essentially morbid condition of the circulating fluid itself? The ancients were well aware of the important part which the fluids sustain in the animal economy; and were inclined to ascribe much, if not most diseased action, to some vital change in the nature and quality of the fluids themselves. Thence arose their system of humoral pathology. Perhaps none of the fluids were regarded by them so much in default as the blood; but, like all other too exclusive doctrines, the pathology of the humoralist gradually gave way to that of the solidist, who, arguing from the changes perceptible in structure, rested too much on simple organic lesion, to the almost total rejection of the changes which might previously have been effected, in respect of the quality and composition of the fluids by means of which these solids were maintained. That the blood as a fluid is subject to disease, is, we believe, pretty generally admitted in the present day; and if we reflect that the blood is next in importance to what we term *life itself*, since by its undisturbed and healthy circulation, that most mysterious principle is upheld, it is not difficult to perceive how vast must be the baneful influence exerted on the living economy, by a deviation of this vital fluid from the true standard and composition of health. Accordingly, we find, as the result of rigorous observation, that, in certain diseases, the blood undergoes important modifications.

Without entering into a minute chemical detail of this fluid, which would be foreign to our present undertaking, it may be sufficient to remark in a general way, a few of those diseases which most convincingly demonstrate to us the truth of these observations. First, then, we find that the absolute quantity of blood may be increased, as in plethora, or be diminished, as in that state of the system called anæmia; 2dly, in respect of its quality, important deviations from health are sometimes distinctly cognisable. The various constituents of which it is composed may individually be either in a state of excess or deficiency; thus the solid material, or *crassamentum*, may be at one time too abundant; at another, the serum may preponderate or diminish in quantity or quality, whilst again the hematosine may vary as to its proportion. The fibrine, albumen, and salts entering into the composition of the serum, are also liable to important deviations. In the disease or peculiar condition of the system styled chlorosis, we have a familiar illustration of the deficiency of colouring matter. The blood is also liable to deficient coagulation. Huxham says, in talking of the blood in malignant fever, "the crasis of the blood is not sufficiently firm, too attenuated; the serum blackish, and tinctured with red." The opinion of early writers, with regard to the imperfect coagulation of blood in certain fevers, has been subsequently fully substantiated and confirmed by the experience of more modern observers. In yellow fever, for example, Dr. Stevens states, that the blood is in a much more fluid state after death, than is usually the case in other diseases. His words are, "the colour of the whole mass of blood, both in the arteries and veins, was changed from its natural scarlet or modena red, to a dark colour. I have frequently filled one glass with the black fluid taken from the heart, and another with the black vomit taken from the stomach. They were both so unlike the blood of health, and resembled each other so completely, that it was almost impossible to distinguish the one from the other; and from its appearance, it was very evident that such diseased blood could no more stimulate the heart, or support life in the solids, than putrid water can nourish vegetables, or carbonic acid gas support respiration."<sup>1</sup> In

<sup>1</sup> Stevens on the Blood.



Asiatic cholera, again, we have an instance where the blood has been found in the very opposite state to this, as regards consistence—being thick, and of a very dark colour; but perhaps one of the very best instances for the purpose of exemplifying the wonderful change which the blood sometimes undergoes is to be found in the disease termed scorbutus. Dr. Mead, in describing the blood in this disease, says, “as it flowed out of the orifice of the wound, it might be seen to run in different shades of light and dark streaks. When the malady was increased it ran thin, and seemingly very black, and after standing some time in the porringer, it turned thick, of a dark muddy colour; the surface in many places of a greenish hue, without any regular separation of its parts. In the third degree of the disease it came out as black as ink, and, though kept stirring in the vessel many hours, its fibrous parts had only the appearance of wool or hair floating in a muddy substance.”<sup>1</sup> In this affection, then, we see the wonderful influence which certain kinds of diet exert upon the quality of the blood. In the disease termed *purpura hæmorrhagica*, or *hæmorrhæa petechialis*, we have one of the most palpable instances of abnormal fluidity of the blood, as is evident from the circumstance of its issuing from its proper vessels, independent of any abrasion. The mucous membrane seems to be the tissue from which it is most prone to flow. Looking at all those circumstances, therefore, it will surely be admitted that albuminous urine may result from a morbid or abnormal fluidity of the blood.

Other agencies still, we conceive, may be capable of producing an albuminous state of the urine. Dr. Darwall says, “as a secreting organ, the kidney is especially liable to be affected by the pabulum afforded it; and should the blood reach it in an imperfect state, whether in consequence of indigestion, &c. we may expect that its function will be impaired.” It is a well-known fact that the urine is often highly albuminous after having partaken of pastry and other indigestible substances. Our case sixth, not fully detailed, presents us with an example of albuminous urine following indigestion. May not nervous influence modify the renal secretion? Take for example the affection commonly termed hysteria as a familiar and daily instance of illustration. We all know that, in this affection, a pale and copious secretion of urine is one of its prominent symptoms, and it is to be borne in mind that this peculiar condition of the urine requires but little time for its developement. If, then, nervous agency has such a powerful influence in inducing the simple change of colour in the renal secretion, apart altogether from any thing like structural lesion, it surely is not difficult to suppose that a change or modification in its constituent elements, may be effected through the same medium.

We come now to offer a few remarks upon the true value of albuminous urine, as pathognomonic of organic disease of the kidney. We have seen that the granular kidney is not the only disease in which albumen makes its appearance in the urine. We have also enumerated several instances in which this phenomenon was present, without the most careful examination after death revealing to us any change of structure in the substance of the kidney. It must, however, have struck those who paid attention to the specific gravity of the urine, in those cases which we detailed, and where particular care was taken to ascertain this point, that in very few cases, indeed, had we any thing like the unusual low specific gravity so characteristic of the granular kidney. To this physical symptom, then, we would be inclined to attach more importance as a single symptom, than the mere presence of albumen in the urine. Dr. Prout says, “I am induced to conclude, that an albuminous condition of the urine taken alone, as a symptom, does not, in the present state of our knowledge, indicate the use of any particular remedy, or mode of treatment, but that, nevertheless, it is a symptom of which we ought to be always aware, since, taken in conjunction with the

<sup>1</sup> Mead's Medical Works.

others, it may be occasionally useful in directing us to form a more correct judgment of the general nature of the disease."

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### BIBLIOGRAPHICAL NOTICES.

#### *Stewart on the Diseases of Children.*<sup>1</sup>

The work of Dr. Stewart—owing to accident—has not reached us until recently, although it has been before the profession for several months. Dr. Stewart is the translator of M. Billard's work on the same subject, which we characterised on its appearance as having a better pathological foundation than any of the numerous works on the diseases of children that had preceded it.

The work before us is deserving of similar encomiums, and the valuable treatise of Billard well prepared the way for it. The object of the author, as stated by himself, was the condensation of existing knowledge from facts, both from his own sources and from the recorded experience of others, and thus to present, without the detail of cases, a treatise on the affections of children, in which the subject may be considered with a direct practical bearing; and in this he has succeeded in a great degree. One or two errors we have noticed in a hasty glance at the work, which he may correct in a future edition. For example, he states at page 247, that "the oil extracted from the seeds of the *Artemisia santonica* is an anthelmintic in common use, and is certainly very efficacious." No such oil has fallen under our notice, either in this country or elsewhere, the oil used here is that of the *chenopodium anthelminticum*.

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#### *Morton's Edition of Ellis's Formulary.*<sup>2</sup>

This work has been long before the profession, and its sale exhibits how greatly such works are sought after.

A weighty difficulty with the young practitioner is to know how to prescribe the different articles of the *Materia Medica*, with whose main properties he may, nevertheless, be conversant. This difficulty is in some measure obviated by works like the one before us. From time to time, too, they require being brought up to the existing period; and in the present case, the respectable publishers have done well to enlist the services of so competent an individual as Professor Morton.

<sup>1</sup> A Practical Treatise on the Diseases of Children. By James Stewart, M. D. 8vo. pp. 547. New York, 1841.

<sup>2</sup> The Medical Formulary: being a collection of prescriptions, derived from the writings and practice of many eminent physicians in America and Europe. To which is added an appendix, containing the usual dietetic preparations and antidotes for poisons; the whole accompanied with a few brief pharmaceutic and medical observations. By Benjamin Ellis, M. D. &c. &c. Sixth edition, revised and extended by Samuel George Morton, M. D. 8vo. pp. 262. Philadelphia, 1842.

*Western and Southern Medical Recorder.<sup>1</sup>*

This is the title of a new candidate for professional favour on the western side of the Alleghanies. The school of Louisville has already a journal in connection with it; and the one before us is destined, we presume, to be, in some respects, the organ of the medical school of Transylvania University. Professor Cross is well calculated to be its editor. He is well read in professional lore; and is full of zeal and activity in the cause of science.

We cordially wish his periodical every success. It is a new labourer in the field of science, and cannot fail to bring forth useful fruits.

*Philadelphia Medical Examiner.*

This periodical is about to undergo changes. It receives as its acting editor Dr. Reynell Coates of this city. No one could come to the task better prepared by education; by the possession of a vigorous intellect, and of powers of description and of criticism, with which few are gifted. As a surgical writer, he is well known by several excellent articles in the American Cyclopædia of Medicine and Surgery, and numbers in many of our great cities have admired the mind and the language displayed in his lectures on *Popular Physiology*,—a subject so important to all, but which is unfortunately too much neglected.

The Examiner will still continue to receive the able assistance which its former editors are capable of rendering it.

## MISCELLANEOUS NOTICE.

*Philadelphia Medical Schools.*—Notwithstanding the multiplication of medical schools elsewhere, Philadelphia retains the decided pre-eminence, which she has always enjoyed as a seat of medical learning. The great advantages afforded by her institutions, which have been engaged for some time in the business of medical instruction; the enviable reputation of the teachers; the *materiel* of all kinds with which they are so abundantly supplied; the well cultivated field, which she possesses for clinical instruction; richly endowed hospitals; well conducted dispensaries, into which diseases of every kind are received; to say nothing of the advantages afforded to the student by the quiet character of the city, and the reasonable rate at which he can supply himself with every thing of necessity and luxury,—are every where appreciated. Quiet and unobtrusive as her different schools now are, they have attracted to the city the usual number of students. The Faculty of Jefferson Medical College can congratulate themselves on a considerable accession to their numbers of last year; and if such be the fact now, how flattering must be the prospects hereafter. The professors under the new

<sup>1</sup> The Western and Southern Medical Recorder, edited by James Conquest Cross, M. D., Professor of the Institutes of Medicine and Medical Jurisprudence in Transylvania University, &c. No. 1. Vol. I. for Nov. 1841. 8vo. pp. 48.



organisation have given unmixed satisfaction, and are proceeding zealously and efficiently in the discharge of their responsible duties. The museum has obtained large additions, and is daily receiving more, and every thing proceeds harmoniously and effectively.

Two sets of clinical lectures are delivered in the week at the Philadelphia Hospital:—one on Wednesday, by professors of the University of Pennsylvania; and one on Saturday, by professors of the Jefferson Medical College. The hospital fee admits the students to both courses.

Of the numbers at the University of Pennsylvania and the Pennsylvania College, we know nothing certain. We may state, however, on the authority of an excellent friend, who is attached to the former institution, that the attendance there is as usual; and on the whole the number in the city is about the same as last year.

It need scarcely be said, that if the multiplication of colleges, in any one place, be an evil, there are advantages in its train. It makes manifest the facilities which the place affords; and in the case of Philadelphia is calculated to confirm the reputation, which she has always enjoyed, of being the great centre of medical education in the United States. At no former time, has she so richly merited the reputation as at present, and it will be her own fault, should she exhibit fewer claims to the consideration of the medical student.

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*Berkshire Medical Institution.*—The published catalogue of this institution, contains the names of 103 students. The number of graduates of 1840 was twenty-two.

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*Vermont Academy of Medicine.*—The annual announcement contains the names of twelve graduates. The honorary degree of Doctor of Medicine was conferred on three others. The faculty is composed of the following gentlemen: Jas. M'Clintock, M. D. President, and Professor of Anatomy and Medical Jurisprudence; Joseph Perkins, M. D. Registrar and Professor of Materia Medica and Therapeutics; Frank H. Hamilton, M. D. Professor of the Principles and Practice of Surgery; David M. Reese, M. D. Professor of the Theory and Practice of Medicine; Chauncey Z. Mitchell, M. D. Professor of Physiology, General Pathology, and Operative Obstetrics; William Mather, M. D. Professor of Chemistry and Pharmacy; William C. Wallace, M. D. Professor of Ophthalmic Anatomy and Surgery; Egbert Jamieson, M. D. Demonstrator of Anatomy.

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*Anatomie Clastique du Doct. Auzoux.*—In our August number of the present series of this work, we mentioned the artificial anatomical preparations of Dr. Auzoux, of Paris, and that he had appointed H. Rawls & Co. of Albany, his agents for their sale and distribution in the northern states. Since then, we have been requested to notice, that Dr. J. Millington, teacher of anatomy in William and Mary College, Williamsburg, Virginia, has been appointed agent for a like purpose, in the southern states.

As these preparations are at present little known in this country, we think it right to apprise our readers that they are as perfect models, or representations of the various parts of the human body, when divested of its integu-

ments, as can well be prepared by art. The preparations are made of *Papier maché*, a substance of great hardness and durability, and not very easily broken. Each muscle, or viscus, is cast in a mould, and afterwards coloured from nature. They are so constructed, that every portion of one side of the body may be taken to pieces, and put together again, with great facility; thus exhibiting the internal and external form of each muscle, in its proper form and proportions; or the entire subject, when put together. Each muscle carries with it the arteries and veins that belong to it, shown in an injected state; as well as all the principal nerves, which may be traced to the brain, and medulla spinalis.

Dr. Auzoux has been many years in bringing these models to their present state of perfection, and has been aided in his labours by several of the most experienced anatomists in Paris, so that full confidence may be placed in the correctness of the objects represented.

To the medical student, before attempting dissection of the dead subject; and the medical practitioner who wishes to renew or keep up his anatomical knowledge, these models will prove of great utility and importance, especially in the southern states, and all hot climates, where animal decomposition proceeds so rapidly after death, as to preclude the possibility of studying anatomy upon the real subject. We are glad therefore to find that a trustworthy agent has been appointed in the south for the distribution of these excellent models, and we add a list of the preparations Dr. Auzoux is now prepared to furnish, and the prices he charges for them in Paris. They are

1. A complete model of a man five feet six inches high, showing all the bones, muscles, arteries, veins, lymphatics, glands, facia, *France*. &c. on an iron stand, . . . . . 6000
2. The above of smaller dimensions, and less developed in its parts, . . . . . 3000
3. The large model, without the lymphatics and other small vessels and parts; less developed than in the first model, . . . . . 3200
4. Model of a man four feet high, on iron stand, showing all the muscles, and all the large vessels and nerves, to an extent sufficient for most purposes of study and instruction, . . . . . 1050
5. Model of a woman, with the pelvis, and organs connected with the uterus in an unimpregnated state, fully developed, and movable, . . . . . 1000
6. A set of fourteen models, (size of life) of the gravid uterus, showing the progress of gestation from conception to parturition; and examples of enlarged ovary, and of extra uterine conception, . . . . . 500
7. Model of the female pelvis, and parts adjacent, with external and internal organs of generation, . . . . . 300
8. Seven models, or half the above set of uterine models, showing the progress of gestation at seven distinct periods, . . . . . 300
9. Model of the internal and external ear, of large dimensions, and separable to show each part distinctly, . . . . . 150
10. Dissecting model of the brain and medulla spinalis, with the origin of all the nerves, and their primitive ganglia, . . . . . 150
11. The leg and foot of the large model, No. 3, detached, . . . . . 150

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| 12. Model of the eye, with its muscles and internal parts, on a large scale, . . . . . | 100 |
| 13. Model of the fœtal heart with its vessels, large scale, . . . . .                  | 50  |
| 14. The leg and foot of the small model, No. 4, detached, . . . . .                    | 50  |

Models of other parts of the body in detached forms, are in preparation, and will shortly be ready for delivery.

To such of our American readers as are not conversant with the currency of France, we will observe that the *franc* is equivalent to about twenty cents of United States money; but adding the expense of package and freight from Paris to our ports, makes each franc equivalent to about a quarter of a dollar when the models are landed here; and they are not subject to any American tariff duty. From the great demand for these models at the present time, (as they are introduced into most of the medical schools of Europe,) Dr. Auzoux will not permit any of them to leave his establishment in Paris, until they are paid for there.

Dr. Millington requests us to state that he is now prepared to receive and execute orders for any, or all of the above models, at Dr. Auzoux's prices in Paris, with the addition only of the exchange value of money between this country and Paris, the freight and shipping charges, and any other actual costs of importation, (and insurance, *if desired*,) and five per cent commission on the value, for his trouble. And he will reply to any post-paid letters asking further explanations and particulars. But, on account of the conditions prescribed by Dr. Auzoux, he cannot transmit any orders to Paris without first receiving the value in cash, or approved notes or acceptances.

The models are in daily use by his pupils, and may be seen at his office in Williamsburg, Virginia, by such as wish to inspect before they purchase; and all orders shall be completed within eighty to a hundred days after they are paid for.

*Report of the Obstetric Practice in the Philadelphia Dispensary, for the Fourth, Fifth and Sixth months, 1841.* JOSEPH WARRINGTON, M. D., Accoucheur.—Twenty-five women have been delivered, at or near full term, of twenty-five children, of whom eighteen were boys, and seven girls.

The average duration of labour in twenty cases was thirteen and a half hours, the extremes being two and ninety-six hours.

The average time required for the spontaneous delivery of the placenta was, in nineteen cases, twenty minutes—the extremes being five and sixty minutes.

The fœtus presented the cephalic extremity in all cases. In nineteen cases in which the position of the fœtus was carefully noted, fifteen were in the first, two in the second, one in the third, and one in the fifth of the vertex.

In one case the occiput presented originally transversely to the left ilium, in consequence of contraction of the sacro-pubal diameter of the superior strait. In this case the shoulders were delivered transversely at the inferior strait. The subject of this case was delivered by forceps, which could be made to lock only with the pivot directed toward the symphysis pubis. One blade, therefore, embraced the posterior portion of the left parietal bone, and the other passed over the right portion of the coronal suture and down upon the face, the head having rotated to correspond with the first position of the vertex—the impracticability of adjusting the forceps to that ascertained direction of the head, is ascribed to the arrangement of the superior strait. The child did well; the mother had a slight attack of metro-peritonitis, but



this was promptly subdued by free bleeding from the arm, and the application of leeches to the left iliac region.

Two of the children were still born; one apparently in a state of asphyxia, the labour having been so rapid as to terminate before any assistance could be rendered; and the other in a semi-putrid state, the fœtus having evidently been dead some time before parturition.

One child was born in an extremely feeble state, after having been subjected to severe uterine contractions, several days successively, before the labour was terminated; it died in a state of exhaustion, four days after birth.

One child had erysipelas, commencing in the scalp, and spreading over the upper part of the body. It recovered under the persevering use of small doses of calomel, bicarbonate of soda, and powdered acacia internally, and the constant application of the mucilage of the slippery elm externally.

In one case the placenta was found to be adherent to the fundus of the uterus, requiring the careful use of the hand to separate it. Patient recovered without subsequent accident.

There were two cases in which the placenta was retained—one during five hours, and the other one hour and a half.

The placenta in both these cases, presented its whole internal disk to the os uteri, which was too small to transmit it. In one of these cases, also, the tonic contraction of the uterus was so feeble that ʒss. of ergot was given before it appeared expedient to use manual aid. In the other, also, the patient was suffering much from hemorrhage; free frictions upon the abdomen, and the introduction of the hand into the uterus, were immediately sufficient. Both these cases subsequently did well.

In the subject of the delivery of the semi-putrid fœtus, though only nineteen years old, there was a large varicose tumour on the left labium. It rapidly subsided after delivery, with no other treatment than the free use of cold salt water.

Two of the cases which have been under care, required much attention for a long time before and after delivery. One had been the subject of inguinal abscess, supposed to have descended from the fascia of the psoas muscle, in whom the pressure of the gravid uterus was attended with great distress; although her labour was well conducted, she had an attack of peritonitis, which required great vigilance. She slowly recovered, without the recurrence of the abscess.

The other case was the subject of a scrofulous diathesis. She suffered during the latter months of pregnancy with severe pains over the whole abdomen, and especially in the right inguinal region. The labour was accomplished as in the other case, without extraordinary difficulty—but the patient passed through the various grades of peritonitis, metritis, and periostitis, and, finally, inguinal abscess. She at present offers some hope of recovery.

For most important aid, in the management of these protracted and critical cases, it is my duty to acknowledge the unremitting zeal of the members of my class, who participated in the treatment, and my thanks are due to the surgeons who gave us their council in the two cases last mentioned. Most of the physical comforts enjoyed by these poor women were furnished by the "Philadelphia Nurse Charity." There were several other cases of milder forms of peritonitis. They all recovered well under the usual treatment.

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*Quarterly Report of the Obstetric Practice in the Philadelphia Dispensary, for the Seventh, Eighth, and Ninth months, 1841.* JOSEPH WARRINGTON, M. D., Accoucheur.—Fifteen women have been delivered of fifteen children, of whom nine were boys and six were girls.

The average duration of labour in eleven cases, was six hours; the extremes being two and twelve hours.

The average amount of time required for the spontaneous delivery of the placenta, in six cases, was nineteen minutes; the extremes being five and thirty minutes.

In four cases the placenta was retained, from incapacity of spontaneous expulsion. In two of these, however, it was merely necessary to introduce the index-finger within the os uteri, to bring down an edge of the placenta. In another the entire hand had to be passed up for that purpose, while in the fourth case, in consequence of an atonic state of the uterus, contractions were produced by the introduction of the hand, after an apparent failure to produce this effect by the administration of two scruples of powdered ergot, in two drams of the vinous tincture of the article.

There were two cases of uterine hemorrhage after delivery. In one woman, (who at a previous pregnancy had placenta præviæ, with profuse sanguine discharge during labour,) it was promptly arrested by the use of wine of ergot, and abdominal compression. In the other case, the patient was in advanced phthisis; it came on some time after she had been placed in bed. It was arrested only by the free use of wine of ergot, with additional quantities of wine, (to sustain her in her prostrate condition,) and also by the use of firm compression of the abdomen and vulva.

The women all recovered.

The fœtuses were found presenting the cephalic extremity in ten of the cases which were noted—nine of these presented in the first position.

There was also one presentation of the breech, and one of the feet.

One child was still-born, (the subject of the breech presentation)—another died near a month after delivery, apparently of meningitis.

The other children were doing well at the time of our attendance.

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*Cause of Ciliary Motion.* By EDWARD FORBES, M. W. S., For. Sec. B. S. &c.—When, through the elementary animal tissue, (the passive gelatinous tissue, seen in the sponges), granules are interspersed, it becomes active, and presents motions of undulation, contraction, and extension. This granular tissue, in its simplest form, is seen in the hydra, or fresh-water polype, and in the bodies of the sertularian hydroid polypes. In the arachnodermata (or medusæ) we find the inactive gelatinous tissue becoming cellular, and constituting the greater part of the animal's body, but the motions of that body are effected by rings, bands, and processes, composed of the active granular tissue. In the order ciliograda of that class we see the largest known examples of those remarkable organs the vibratile cilia. These cilia are lanceolate, bent, flattened processes, not tubular, as some have stated, but solid. Neither are they webbed together, as they have been figured, but separate. They are placed in transverse rows on short bars of the granular tissue, which, by the way, is always translucent, while the gelatinous tissue of a tegumentary state, of which the cilia themselves are composed, is always transparent. That the vibratile motion does not originate in the cilia themselves, is proved by the fact, that if one be cut away from its translucent base, it always remains immoveable; and that the motion properly resides in the base composed of granular tissue, is evident, since, if the smallest portion of that tissue remain attached to one of the cilia, when it is cut away, it continues to vibrate. Now, if we suppose a ciliiferous bar to present regular undulatory motions in one direction, such a motion as is seen in the bodies of some of the lowest trematode entozoa, the *Tetrasoma Playfairii*, for example, we have at once the explanation of the phenomena of ciliary motion in the ciliograda. Such an explanation will also account for the ciliary phenomena presented by the wheelbearing animalcules and other infusoria, where the undulations need only to be propagated in a circle to produce the revolving appearance. It may be questioned, whether there may not be a difference in the cause of motion between the voluntary cilia of these animals, and the involuntary cilia seen on certain

membranes in others. But when we consider that the involuntary movements of the cilia round the margins of the remarkable cup-like processes which stud the branchiæ of the Echiurus, (discovered last winter by Mr. Goodsir and myself,) appear to originate in the same organisation, we may speculate on the probability of the same causes operating in both cases. A minute inquiry into the nature of the involuntary vibratile cilia seen on mucous surfaces among the higher animals is most desirable.—*Edinburgh Monthly Journal of Medical Science.*

*On the Employment of Nitrate of Silver in White Swellings.* By M. JOBERT, Surgeon to the Hospital St. Louis.—By a series of accurate and conclusive observations M. Jobert has shown that the best and most prompt means of overcoming articular pains in cases of white swelling, and to make the turgescence of the tissues disappear, consists in the external employment of an ointment of nitrate of silver. We have watched on fifteen patients the action of this remedy, in the wards of M. Jobert, and have been astonished at the prompt effects in long-continued and previously rebellious diseases. The treatment consisted in frictions on the diseased articulation with an ointment composed of thirty parts of lard to four of nitrate of silver. If the action of this be insufficient M. Jobert uses eight or twelve parts of the salt to thirty parts of lard. These ointments, designated by the numbers 1, 2, 3, constitute the whole of the treatment. Twelve or fifteen hours after the first employment of the ointment, and generally after the second friction, an eruption of small acuminate pustules appears, presenting a black point in their centre, and surrounded at their circumference by a small rosy areola. The liquid contained in the vesicle at first resembling thick milk, and rapidly assuming a yellowish-white appearance, afterwards becoming true pus. Each friction is accompanied by pains which last three or four hours. About the second or third day the skin becomes of a violet colour, and smarts acutely. The frictions must then be suspended, and not renewed until the parts are calmed. We do not enter into further details, as a full memoir on the subject is promised.

[It is very extraordinary that such accurate pathologists as the French should so generally continue to class as "*tumeurs blanches*" the very different diseases to which the joints are subject. We are thus left in doubt whether the above cases were scrofulous enlargement of the articular extremities of the bones, ulceration of cartilage, disease of synovial membrane, or of parts external to the joint.]—*Bulletin Général de Thérapeutique.* Juin, 1841.

*Report on M. Louvrier's Treatment of Anchylosis by sudden and forcible Extension.* By MM. THILLAGE and BERARD.—The following is the substance of the above lengthy report. M. Louvrier's machine has been employed on twenty-two patients, of whom only three have experienced ill effects, all the others having escaped injury. Most of the patients suffered excessive pain at the moment of operation. In no case has the ankylosed articulation recovered entire freedom of motion. Those patients most successfully treated are obliged to use a staff in walking; one only walks without a stick, but the restraint is evident.

With regard to the unfortunate cases: in one female, in whom the anchylosis of the knee was complete and the limb fully flexed, the application of the machine was followed by a very considerable rupture of the skin, luxation of the leg upon the posterior part of the thigh, and abundant suppuration which terminated in death three weeks after the operation. At the necropsy the articular cavity was found full of pus, the popliteal artery intact, the popliteal vein full of pus and its coats thickened. Many muscles were ruptured and softened; the anterior crucial ligaments softened; one of the



posterior softened, the other ruptured, attached by one extremity to the tibia and terminating at its free extremity by an osseous portion, which was evidently part of the condyle of the femur, fractured at the moment of operation.

Another patient suffered excessively acute pains at the moment of operation, and remained during some time in a sort of delirium occasioned by the suffering. Gangrene commenced on the next day, but was limited by the efforts of nature alone, and the patient is actually cured.

In a third case, that of a young woman in whom the anchylosed limb was fixed at a right angle, the straightening was incomplete. M. Louvrier applied a piece of wood to the anterior part of the knee by means of which he hoped to press the limb into its natural position; but an eschar formed on the next day and the patient died in six weeks.

In another patient who died from other causes, the articular extremity of the tibia was found to be luxated upon the posterior part of the femur, the internal condyle of the latter being fractured.

The number of these accidents, however, being small [!], the opinion of the reporters would be less unfavourable, were the ill effects balanced by real advantages; but as the limb after operation is as immoveable as an artificial support, they conclude:

1. That the application of the machine of M. Louvrier is followed by an instantaneous straightening (*redressement*) of the anchylosed limb.

2. That it is not ordinarily followed by any severe symptom, primary or consecutive.

3. That when these accidents are produced they are frightfully severe, and are ordinarily followed by death.

4. That none of the patients operated upon by this method have entirely recovered the free motions of the anchylosed articulation. We therefore report to the minister that the machine of M. Louvrier, although ingenious, is dangerous in application, for it will be always impossible to determine the nature of the ankylosis and to foresee the conditions which would offer some chances of success for its employment.

[The barbarousness of this most heroic chirurgery needs no comment from us to prevent its adoption. The facts, however, are well worthy of record.]—*Bull. de l'Acad. Roy. de Méd.* Nos. xiii, xiv, xv, xvi. *Avril et Mai*, 1841.

*Ligature of the Temporal and Facial Arteries in a Case of Epilepsy.*  
By M. VELPEAU.—A man, thirty-six years of age, who had been affected with epilepsy for seven years, which followed a fright, was admitted on the 29th of March last into the hospital of *La Charité*, under the care of M. Velpeau. The attacks had occurred eight or ten times in a month, but daily for the last three months. He had some very severe attacks in the hospital. On the third day from his admission, M. Velpeau, emboldened by some facts scattered here and there in science, and which have hitherto passed almost unnoticed, tied the two temporal arteries. On the same day the patient had another fit, but slight, and on the following day he was perfectly tranquil. On the 4th of April M. Velpeau compressed the two facial arteries on the borders of the inferior maxilla. The fit did not return, and on the 5th of April the surgeon tied the two facial arteries. The patient quitted the hospital on the 15th of April, only having had one fit since the 5th, although for months he had not passed a day without at least one attack. He has promised to return to the hospital occasionally. The case is interesting, though further observation is of course necessary to show whether the ligature of the arteries was the cause of the cessation of the fits.—*Bulletin Général de Thérapeutique.* *Avril 15 et 30*, 1841.

*Good Effects of the Extract of Belladonna in the Reduction of Paraphimosis.* By Dr. MIGNOT, of Bordeaux.—A child, three years and a half old, was the subject of severe paraphimosis; the glans red, swollen, and tender; the prepuce strongly drawn back, forming a thick and apparently adherent ring, the constriction of which completely stopped the circulation. This state had lasted eight days, and the sufferings were excessive. Reduction being impossible, leeches were applied to the perineum and hypogastrium; cooling drinks, emollient enemata, cataplasms, lotions, and hip-baths were used, but they only gave slight relief and but for a short time. The strangulation became more menacing, and all the symptoms were aggravated; the glans was bluish and gangrene was threatened, when M. Mignot employed frictions around the glans, with an ointment composed of thirty parts of simple cerate to twelve parts of extract of belladonna. Under the influence of this remedy the circle of constriction relaxed, dilated, and the tissues gradually recovered their normal condition, without loss of substance or suppuration following.

The second patient had acute balanitis, brought on by a severe gonorrhœa, and followed by paraphimosis. The patient refused operation although gangrene was threatened, when the belladonna was applied, which induced relaxation and rapid amendment. It was also applied in a case of phimosis accompanied by chancres and a sympathetic bubo, and three days after its employment the dilatation of the preputial orifice was complete.—*Bulletin Général de Thérapeutique.* Avril 15 et 30, 1841.

*On the Employment of Cold Affusion in the Treatment of Acute Hydrocephalus.* By Dr. MÜNCHMEYER, of Verden.—Dr. Münchmeyer observes that the medical world is greatly divided in opinion as to the value of this remedy; some persons greatly extolling its efficacy, while others regard it as altogether useless. He considers it to be a most important remedy, and one which will often save life when all other means have been useless. One great reason why cold affusion has met with so few supporters is to be found in the misconception which has prevailed with reference to the proper time for using it. It is certainly not always advisable to resort to it, and it should never be forgotten that its mode of action differs essentially from that of cold when kept constantly applied to the head. In the employment of cold affusion it is the secondary action of cold, as well as the sudden shock to the system produced by the mode of its application, from which benefit is expected, while in the case of cold lotions to the head it is the primary action of cold which is obtained. Cold affusion then must not be looked upon as a directly antiphlogistic remedy, nor is its employment indicated during the early inflammatory stages of hydrocephalus, but rather when effusion, the consequence of inflammatory action has taken place, and a tendency to paralysis exists. After the subsidence of the violent symptoms of the disease, and when the patient has sunk into a comatose state, with a pale countenance occasionally suffused with a flush, dilated pupils, strabismus, and slow pulse, this remedy will frequently prove of excellent service.

In order, however, for benefit to be derived from it, it must be employed in an efficient manner. Dr. Münchmeyer directs that the patient should be taken out of bed, stripped of his clothes, and wrapped up in some simple covering (if waterproof the better), which leaves only his head exposed. He should then be placed in a sitting posture in a bath or tub, and the person who administers the affusion should mount on a chair and pour cold water upon his head, in a moderate stream from the height of five or six feet. This may be continued for a minute or two, and repeated twice or thrice. The patient should then be wrapped up in a warm sheet and placed in bed, where he should remain till it is thought proper again to have recourse to the remedy. At first, it will probably be requisite to repeat the affusion, in

the course of an hour and a half or two hours; but as the patient improves the interval may be longer, so that at last it will not be necessary to employ it above two or three times daily.

The immediate effect of cold affusion is, that the patients awake from their comatose condition and begin to cry violently, which they continue to do so long as the water is poured upon them. They afterwards appear exhausted and pale, the skin is cool, the pulse small and very frequent. When placed in bed they usually fall into a dose, the pulse becomes more regular, and the warmth of the skin returns. By degrees, as with the repetition of the remedy the patients improve, they begin to have sound sleep, from which they awake in the possession of all their senses, recognise those by whom they are surrounded, and cease to squint. At the same time too a sweat, frequently of a critical nature, breaks out upon the whole body, and during its continuance the employment of cold affusion is very hazardous. The patient's sleep becomes more refreshing, and the comatose condition recurs at longer intervals; he begins to notice what goes on around him, the head regains its natural temperature, and the febrile symptoms disappear. The employment of affusion must, however, still be continued for some days, since relapses very frequently occur.

The paper is illustrated by five cases. In three the employment of cold affusion was perfectly successful, in one it produced temporary amendment, and the death of the patient was to all appearance owing to the apathy of the parents, who neglected to persevere in the treatment, while in the fifth convulsions and death followed affusion while the patient was perspiring profusely.—*Hannoversche Annalen*. Band v. Heft 4.

*Poisoning by a Tobacco Enema.* By M. TAVIGNOT.—A strong man, aged fifty-five, who had laboured for some time under dysuria from enlarged prostate, and more recently suffered from the presence of ascarides in the rectum, was subjected to the action of a tobacco injection, made by a decoction of 12 grs. of the tobacco in 6 oz. of water. Seven or eight minutes afterwards, the patient appeared in a slight stupor, with cephalalgia, and unusual paleness of the face. He complained of pain in the abdomen, and his answers to questions were troubled. Two purgative injections were successively administered. A stimulant potion was given; sinapisms applied to the inferior extremities, and blood taken to the amount of three *palettes*. Paleness became more and more marked, respiration more and more laboured, stupor, intelligence altogether lost; convulsive movements of the arms, then of the legs, and afterwards of the whole body, which progressively augmented during six or seven minutes, and were succeeded by extreme prostration. The patient fell into a comatose state and died.—*Revue Médicale*. Décembre, 1840.

*On the identical Composition of Fibrin and Albumen.* By M. LIEBEG, of Giessen.—M. Liebeg states that he has been able to dissolve pure fibrin in a saturated solution of nitre, at a temperature from 50 to 56 degrees. The fibrin becomes gelatiniform, merely leaving a few flocculi, which are insoluble. The filtered fluid possesses all the properties of albumen, and the composition of both is exactly the same. It is as follows:

Carbon	.	.	.	.	.	48
Hydrogen	.	.	.	.	.	74
Nitrogen	.	.	.	.	.	14
Oxygen	.	.	.	.	.	11

M. Liebeg has also precipitated albumen under the form of globules, by adding a sufficient quantity of water to serum which had been neutralised by an acid, and he has likewise obtained fibrin from the blood-globules, by the proceeding described by M. Denis. Lastly, by adding a little caustic potash to albumen, M. Liebeg has precipitated it under the form and with



the properties of casein, by means of alcohol.—*Gazette Médicale de Paris*, 3 Avril, 1841.

*Memoir of the Case of a Gentleman born Blind, and successfully operated upon in the eighteenth year of his age; with Physiological Observations and Experiments.* By J. C. AUGUST FRANTZ, M. D. M. R. C. S.—The young gentleman who is the subject of this memoir had been affected from birth with strabismus of both eyes; the right eye was amaurotic, and the left deprived of sight by the opacity both of the crystalline lens and of its capsule. At the age of seventeen, an operation for the removal of the cataract of the left eye was performed by the author with complete success. On opening the eye for the first time, on the third day of the operation, the patient described his visual perception as being that of an extensive field of light, in which every thing appeared dull, confused, and in motion, and in which no object was distinguishable. On repeating the experiment two days afterwards, he described what he saw as a number of opaque watery spheres, which moved with the movements of the eye, but when the eye was at rest remained stationary, and their margins partially covering one another. Two days after this the same phenomena were observed, but the spheres were less opaque and somewhat transparent; their movements were more steady, and they appeared to cover each other more than before. He was now for the first time capable, as he said, of looking through these spheres, and of perceiving a difference, but merely a difference, in the surrounding objects. The appearance of spheres diminished daily; they became smaller, clearer, and more pellucid, allowed objects to be seen more distinctly, and disappeared entirely after two weeks. As soon as the sensibility of the retina had so far diminished as to allow the patient to view objects deliberately without pain, ribands differently coloured were presented to his eye. These different colours he could recognise, with the exception of yellow and green, which he frequently confounded when apart, but could distinguish when both were before him at the same time. Of all colours, gray produced the most grateful sensation: red, orange, and yellow, though they excited pain, were not in themselves disagreeable; while the effect of violet and of brown was exactly the reverse, being very disagreeable, though not painful. Brown he called an ugly colour: black produced subjective colours; and white gave rise to a profusion of *muscæ volitantes*. When geometrical figures of different kinds were offered to his view, he succeeded in pointing them out correctly, although he never moved his hand directly and decidedly, but always as if feeling with the greatest caution. When a cube and a sphere were presented to him, after examining these bodies with great attention, he said that he saw a quadrangular and a circular figure, and after further consideration described the one as being a square, and the other a disc, but confessed that he had not been able to form these ideas until he perceived a sensation of what he saw in the points of his fingers, as if he really touched the objects. Subsequent experiments showed that he could not discriminate a solid body from a plane surface of similar shape; thus a pyramid placed before him, with one of its sides towards his eye, appeared as a plane triangle.

Two months after the above-mentioned operation, another was performed on both eyes, for the cure of the congenital strabismus, by the divisions of the tendons of the recti interni muscles, which produced a very beneficial effect on the vision of the left eye; and even the right eye, which had been amaurotic, gained some power of perceiving the light, and, from being atrophied, became more prominent. Still it was only by slow degrees that the power of recognising the true forms, magnitudes, and situations of external objects was acquired. In course of time, the eye gained greater power of converging the rays of light, as was shown by the continually increasing capacity of distinct vision by the aid of spectacles of given powers.—*Proceedings of the Royal Society*. 1840-1841. No. 46.